

BARRIERS TO ADOPTION OF IMPROVED AGRICULTURAL TECHNOLOGIES

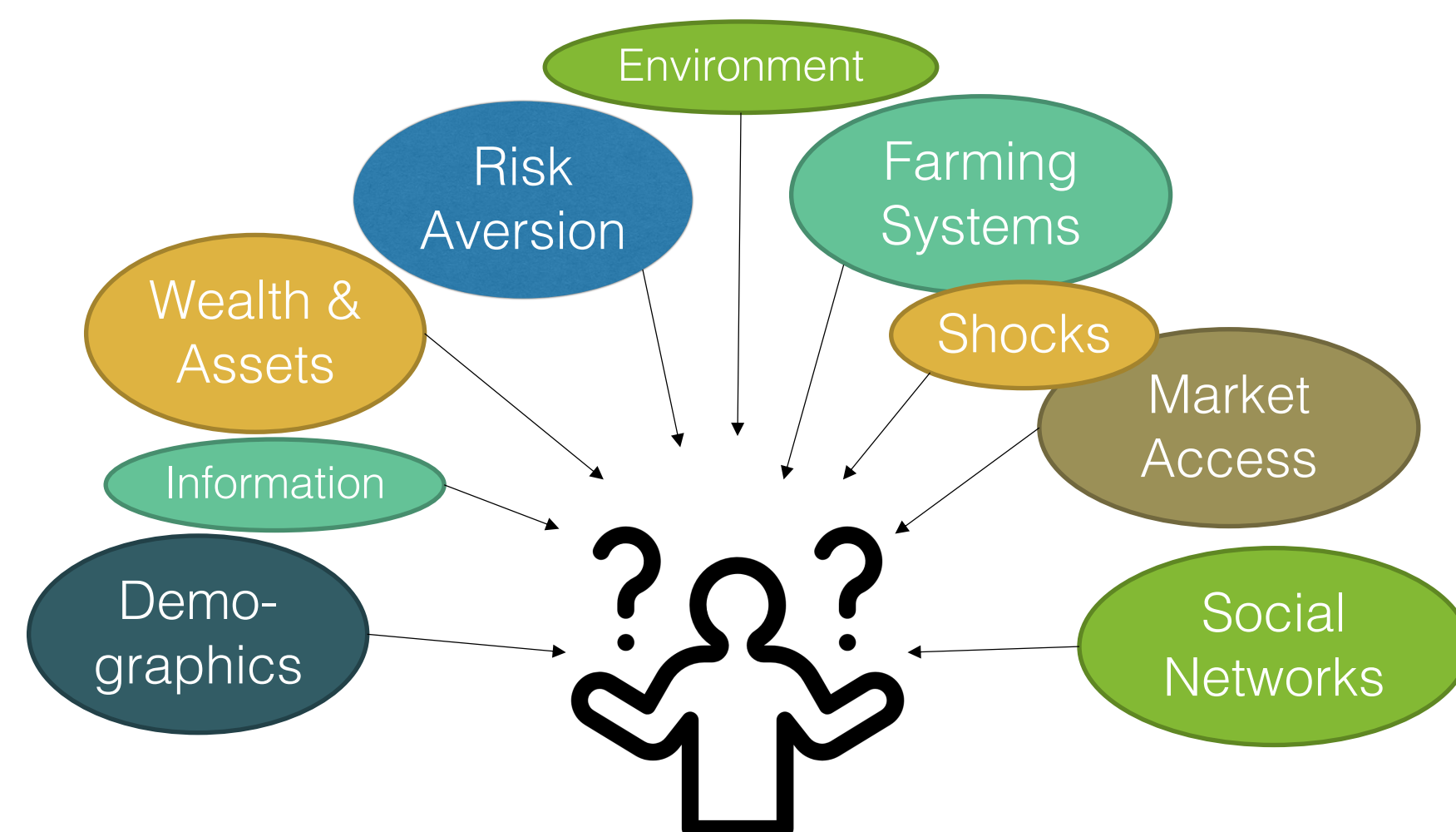
A META-ANALYSIS FOR AFRICA

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Why is CSA adoption so low?

Implementation of CSA technologies is seen as a cornerstone of improving agricultural productivity and resilience in Africa – so why is adoption so low? Many factors, both internal and external influence a farmer's decisions.



What evidence do we have?

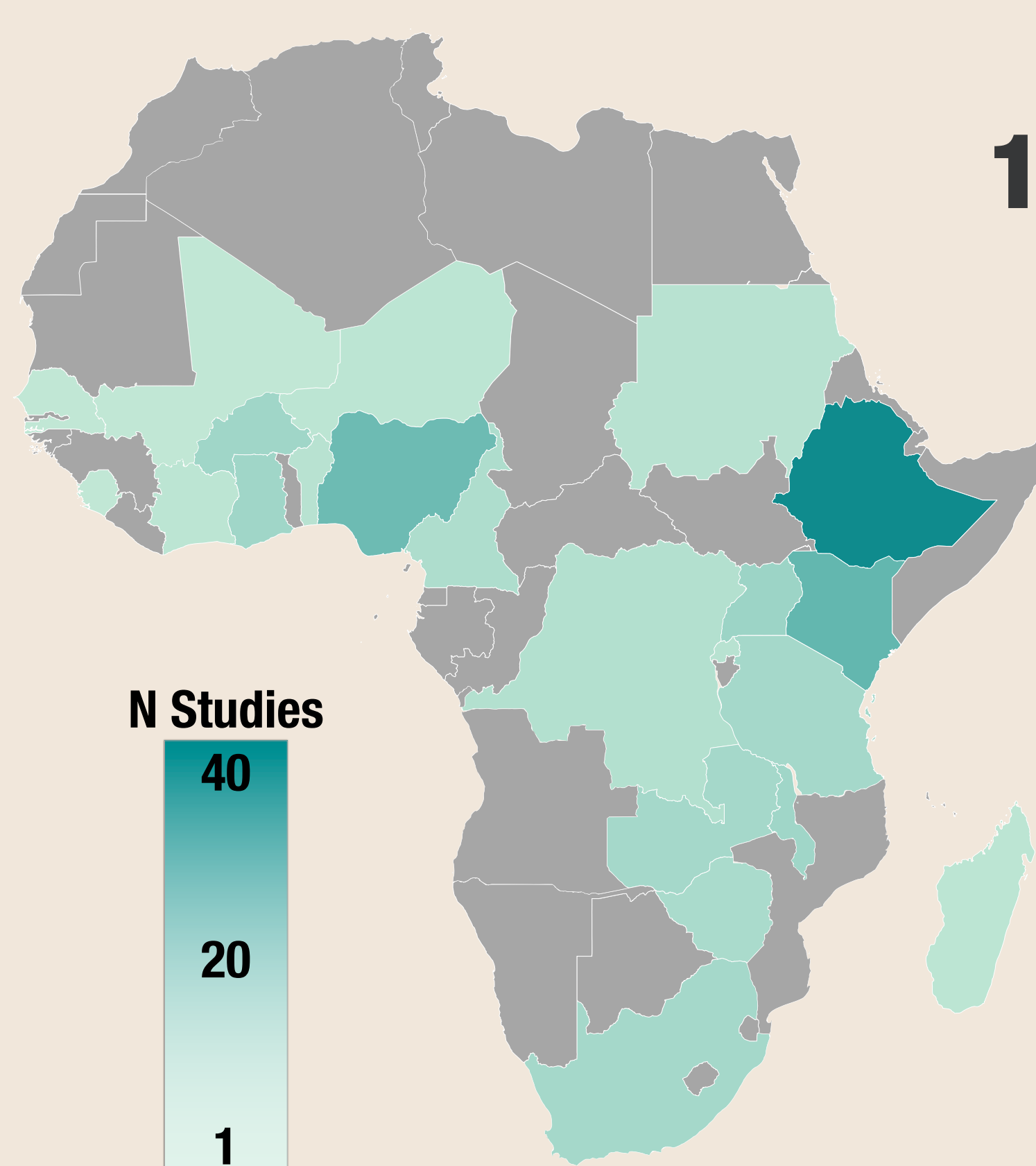


We conducted a **systematic review** of the CSA literature based on the **ERA database***. Studies with empirical evidence on micro-econometrics and adoption were included.

We used **vote count analysis** and **sign tests** to determine how frequently factors negatively or positively affected adoption of CSA, or had no effect at all.



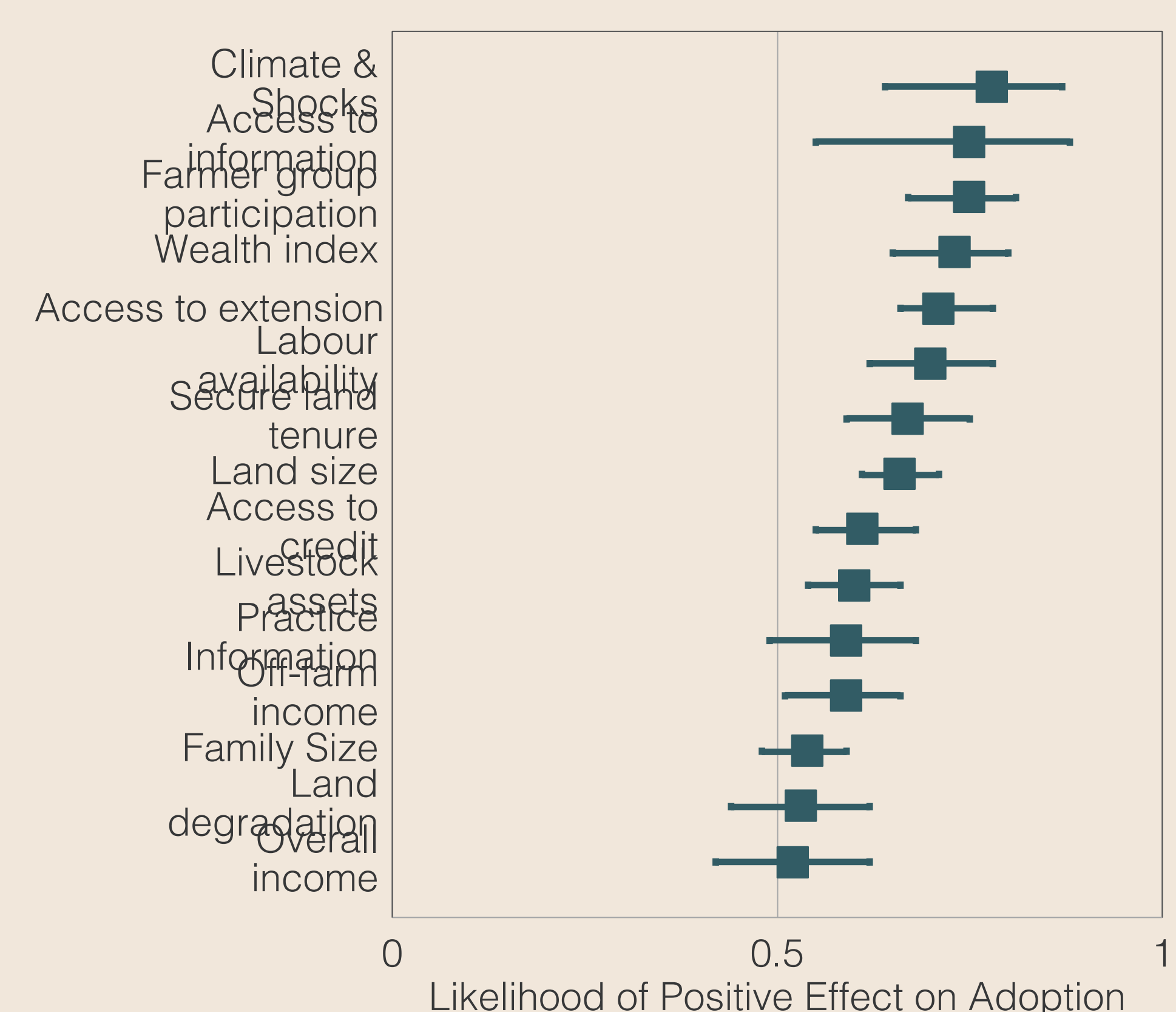
When we look at all the evidence...



168 Peer-reviewed studies with micro-econometric data

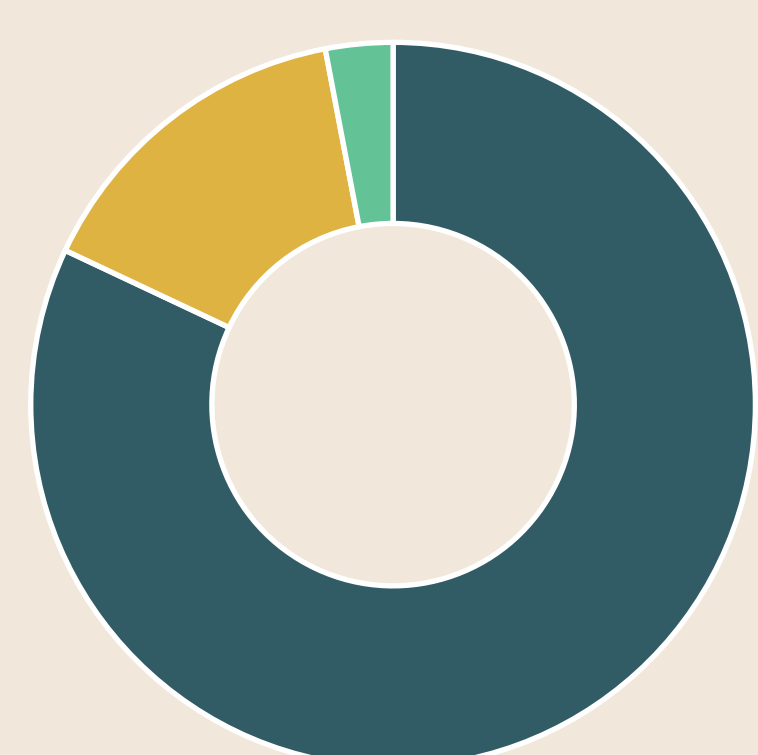
90 CSA technologies on agroforestry, crop, livestock, soil, nutrient, water management, energy, and post-harvest

...many factors consistently increase adoption, while **no factors** consistently decreased adoption.



Separating adoption by technology...

5601 adoption observations



3% Livestock Technologies
15% Agroforestry Technologies
82% Agronomy Technologies

...different factors contribute to positive and negative adoption impacts by technology/farming system.



*What is ERA?

ERA, *Evidence for Resilient Agriculture*, is a systematic review and meta-analysis of potential climate-smart technologies in Africa. It contains information from more than 1400 peer-reviewed studies of nearly 100 technologies. To find out more and use the data go to:

<https://era.ccafs.cgiar.org>



We Big Data

Increasing Adoption of CSA Technologies

➔ Despite context-specificity of adoption factors, many common patterns emerge across locations and technologies. **Land tenure security, access to information and participation in farmer groups consistently reduce barriers** to adoption of climate smart agriculture.

➔ **Use available policy approaches** to enhance information, credit, extension, and networks for increased adoption of CSA in Africa.



Acknowledgements

Funding was provided by the Agricultural Development Economics Division of the UN's Food and Agricultural Organisation (FAO), as well as by the CGIAR's Research Program on Climate Change, Agriculture and Food Security (CCAFS) for the development of ERA. Further support was provided by the Research & Impact Assessment Division of the International Fund for Agricultural Development (IFAD), and the USDA Forest Service.

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